

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference JAB 1702-PCT	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/PEA/416)	
International application No. PCT/EP 03/50293	International filing date (day/month/year) 08.07.2003	Priority date (day/month/year) 15.07.2002
International Patent Classification (IPC) or both national classification and IPC C07D487/04, C07D487/04		
Applicant JANSSEN, PHARMACEUTICA N.V..et al.		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of 5 sheets, including this cover sheet.

☐ This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of sheets.

3. This report contains indications relating to the following items:

I ☒ Basis of the opinion

II ☐ Priority

III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability



IV ☐ Lack of unity of invention

V ☒ Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

VI ☐ Certain documents cited

VII ☐ Certain defects in the international application

VIII ☐ Certain observations on the international application

Date of submission of the demand 24.12.2003	Date of completion of this report 04.06.2004
Name and mailing address of the international preliminary examining authority:  European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465	Authorized Officer Friederich, M Telephone No. +49 89 2399-7860 <div style="text-align: right;">  </div>

**INTERNATIONAL PRELIMINARY
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International application No. **PCT/EP 03/50293**

I. Basis of the report

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)*):

Description, Pages

1-70 as originally filed

Claims, Numbers

1-11 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
☐ the language of publication of the international application (under Rule 48.3(b)).
☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
☐ filed together with the international application in computer readable form.
☐ furnished subsequently to this Authority in written form.
☐ furnished subsequently to this Authority in computer readable form.
☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☐ the description, pages:
☐ the claims, Nos.:
☐ the drawings, sheets:

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)).

(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)

6. Additional observations, if necessary:

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**V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability;
citations and explanations supporting such statement**

1. Statement

Novelty (N)	Yes: Claims	1-11
	No: Claims	
Inventive step (IS)	Yes: Claims	1-11
	No: Claims	
Industrial applicability (IA)	Yes: Claims	1-11
	No: Claims	

2. Citations and explanations

see separate sheet

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Re Item V

Reasoned statement with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

The following documents (D) are referred to in this communication; the numbering will be adhered to in the rest of the procedure:

- D1: GB-A-2 039 883 (INST BIOKHIM FIZ MIKROORGAN AK) 20 August 1980 (1980-08-20)
- D2: WO 02/20525 A (INSTITUTE OF MOLECULAR AND CELL BIOLOGY) 14 March 2002 (2002-03-14)
- D3: WO 02/02552 A (GLAXO) 10 January 2002 (2002-01-10)

If not indicated otherwise, the relevant passages are those mentioned in the International search report.

Art. 33(2) The present application meets the requirements of Article 33(2) PCT, because the subject-matter of **claims 1-11** appears to be new in the sense of Article 33(2) PCT.

None of the documents D1-D3 cited in the International search report discloses the toxoflavine derivatives claimed in the present application.

Art. 33(3) Document D1 discloses reumycin and similar pyrimidinotriazines and their use for the treatment of cancer, from which the subject-matter of the present application differs in that furanyl analogs of toxoflavine are claimed.

The problem to be solved by the present invention may therefore be regarded as to provide further active toxoflavine derivatives with improved solubility.

There is no indication in the prior art at hand that the claimed toxoflavines

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show pharmacologic activity as demonstrated in the examples C1-C6 in the present application.

Therefore the subject-matter of **claims 1-11** is considered to involve an inventive step in the sense of Art. 33(3) PCT.

Art. 33(4) The subject-matter of **claims 1-11** is considered to be industrially applicable in the sense of Art. 33(4) PCT.